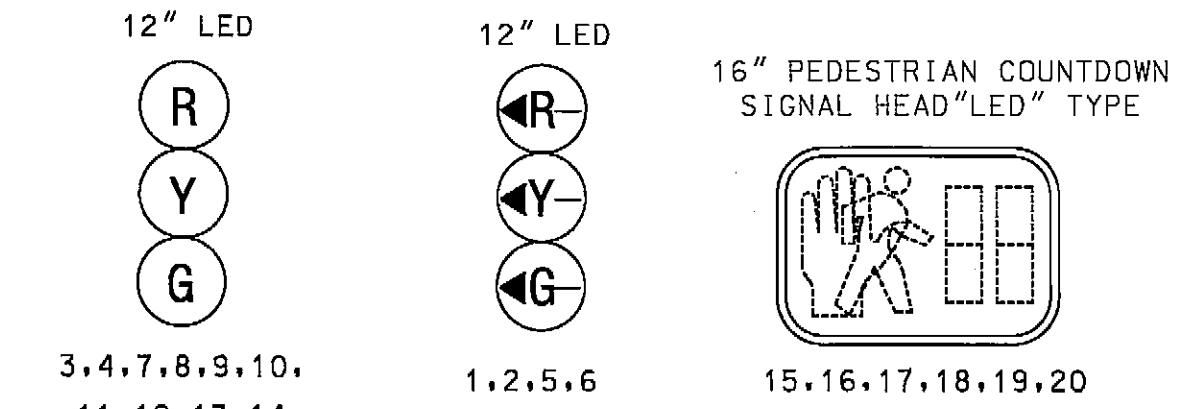
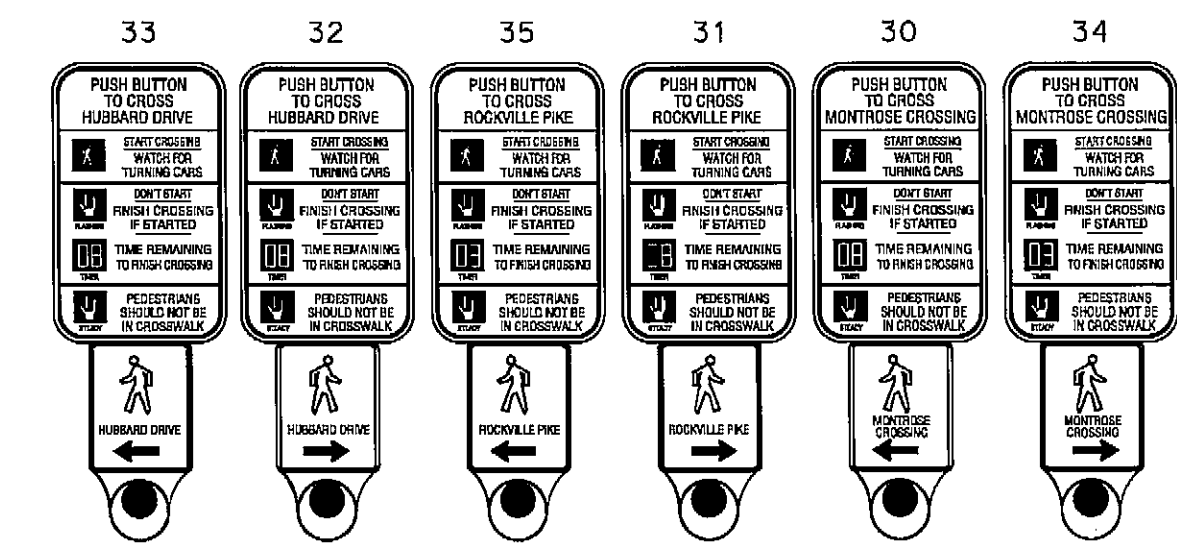
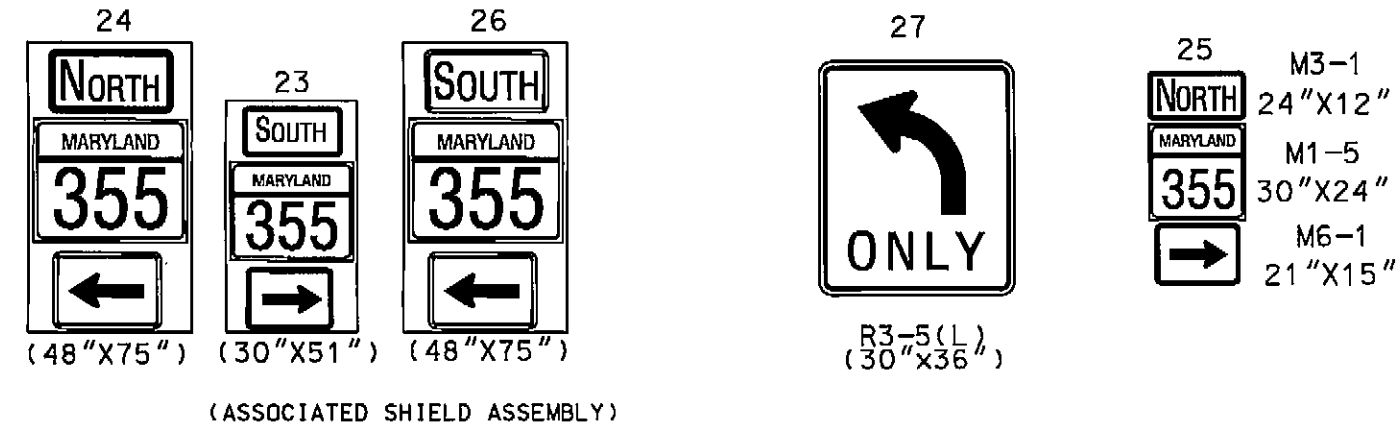


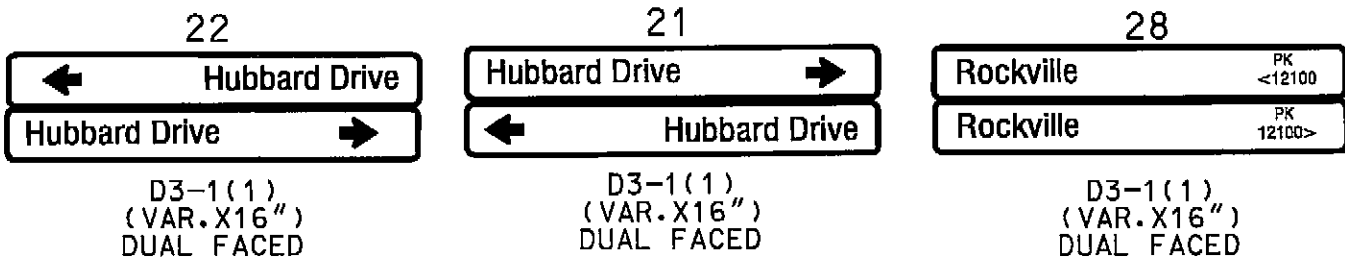
### PROPOSED SIGNALS



### PROPOSED SIGNS



APS BUTTON AND SIGN



## CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH ONE 15' SPECIAL "T" STEEL POLE AND ONE 60' SPECIAL MAST ARM (MD 818.13-01). TRAFFIC SIGNAL HEADS, SIGNS AND OVERHEAD VIDEO DETECTION CAMERA MOUNTED ON THE MAST ARM, (1-3" CONDUIT BEND), DUAL FACED

B. INSTALL CONCRETE FOUNDATION WITH ONE 15' SPECIAL "T" STEEL POLE AND ONE 60' SPECIAL MAST ARM (MD 818.13-01). TRAFFIC SIGNAL HEADS, SIGNS AND OVERHEAD VIDEO DETECTION CAMERA MOUNTED ON THE MAST ARM.

C. INSTALL CONCRETE FOUNDATION WITH ONE 27' SPECIAL "T" STEEL POLE AND ONE 50' SPECIAL MAST ARM (MD 818.13-01). TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEAD, APS PUSH BUTTON, SIGNS AND OVERHEAD VIDEO DETECTION CAMERA MOUNTED ON THE MAST ARM, 10' LIGHTING ARM AND 250 WATT HPS LUMINAIRE, (1-3" CONDUIT BEND).

D. INSTALL CONCRETE FOUNDATION WITH ONE 10' PEDESTAL POLE WITH BREAKAWAY BASE, 16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS PUSH-BUTTON-AND-SIGNS, (1-3" CONDUIT BEND), (MD STD NO.801.01-01 AND 816.16-01).

E. INSTALL A NEMA SIZE 6 BASE MOUNTED CABINET AND CONTROLLER (2-4" AND 2-2" CONDUIT BENDS).

F. INSTALL ELECTRICAL HANDHOLE.

G. INSTALL 2-4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED.

H. INSTALL 1-4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

J. INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

K. INSTALL 3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

L. REMOVE EXISTING SIGNAL POLE, SPAN WIRE, SIGNAL HEADS AND SIGNS. (REMOVE FOUNDATION 12" BELOW GRADE).

M. REMOVE EXISTING SIGNAL POLE, SPAN WIRE, SIGNAL HEADS, SIGNS AND PEDESTRIAN SIGNAL HEADS. (REMOVE FOUNDATION 12" BELOW GRADE)

N. REMOVE EXISTING PEDESTAL POLE, PEDESTRIAN SIGNAL HEAD AND SIGN. (REMOVE FOUNDATION 12" BELOW GRADE).

P. ABANDON EXISTING LOOP DETECTORS.

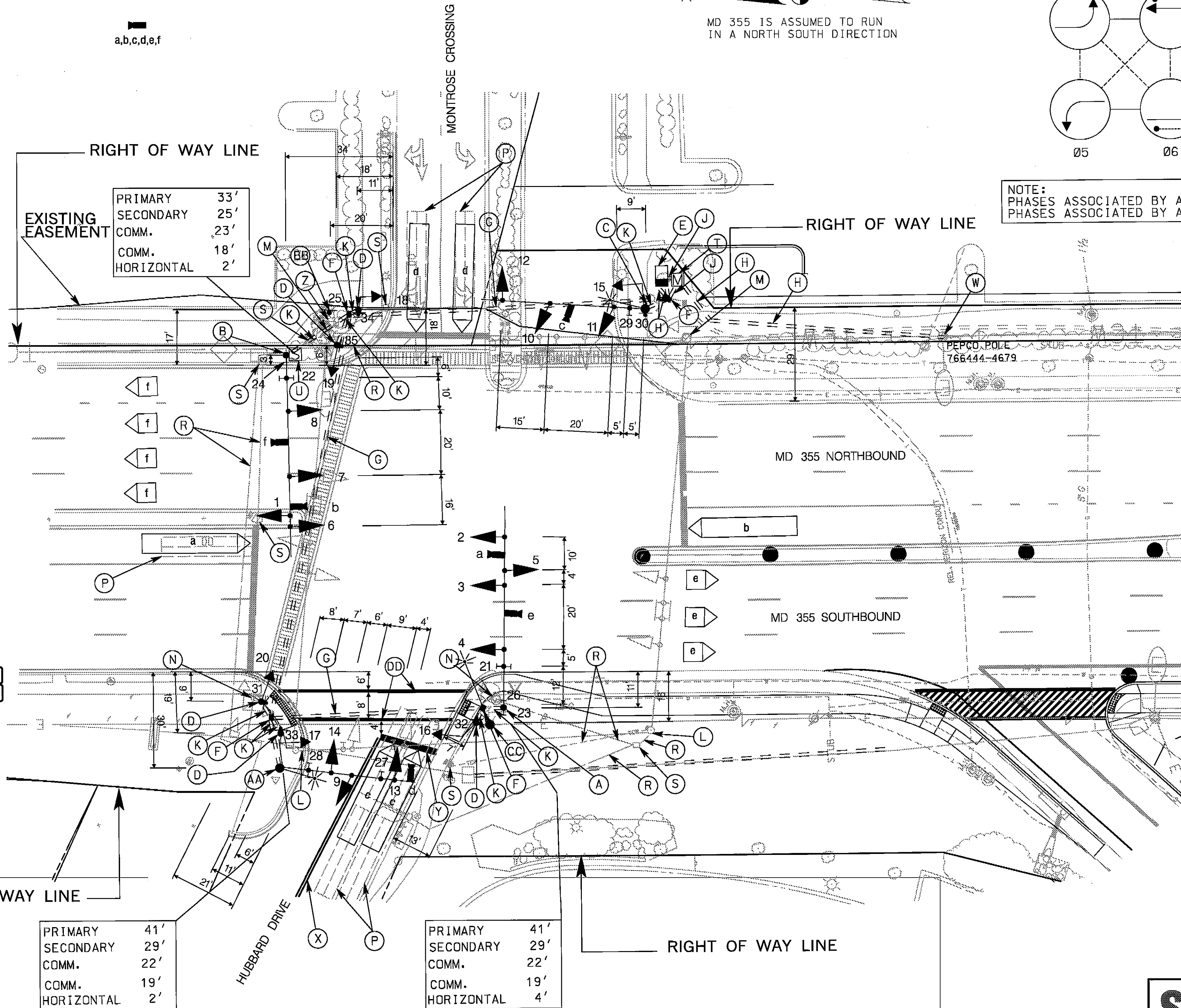
R. CAP AND ABANDON EXISTING CONDUIT.

S. REMOVE EXISTING HANDHOLE.

CONSTRUCTION DETAILS CONT.

T. INSTALL A NEW EMBEDDED METER SERVICE PEDESTAL  
IN THIS LOCATION TO SERVICE THE NEW SIGNAL  
CONTROLLER CABINET.  
U. INSTALL COUNTY SPLICE BOX ON SIGNAL POLE.  
W. FURNISH AND INSTALL 1-4" PVC RISER ON EXISTING  
UTILITY POLE (1-FOR PEPCO), AND PROVIDE 3-120 FOOT  
250 KCMIL CABLES COILED AT BASE FOR PEPCO USE.  
X. INSTALL 5" DOUBLE YELLOW WATERBORNE PAINT.  
Y. INSTALL 24" WHITE WATERBORNE PAINT.  
Z. REMOVE AND DISPOSE THE EXISTING SIGNAL CABINET AND CONTROLLER.

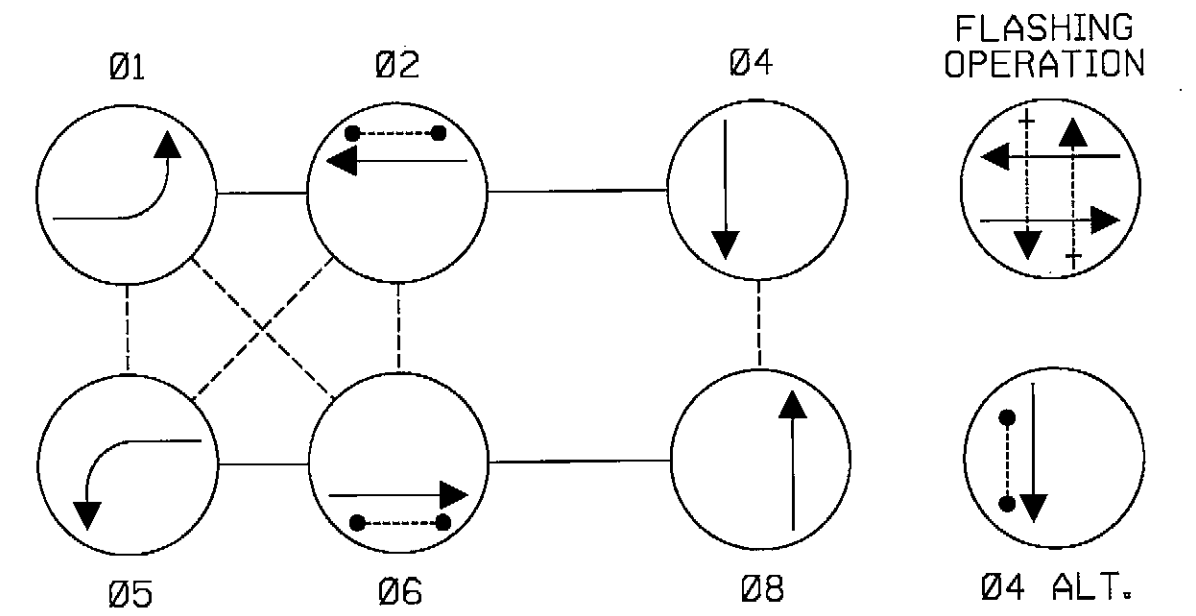
## PROPOSED VIDEO DETECTION CAMERA



CONSTRUCTION DETAILS CONT.

AA. INSTALL CONCRETE FOUNDATION WITH ONE 27' SPECIAL "T" STEEL POLE AND ONE 38' SPECIAL MAST ARM (MD 818.13-01), TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEAD, APS PUSH BUTTON, SIGNS AND OVERHEAD VIDEO DETECTION CAMERA MOUNTED ON THE MAST ARM. 10' LIGHTING AND 250 WATT HPS LUMINAIRE. (1-3" CONDUIT BEND).  
BB. INSTALL GROUND MOUNT SIGN ON 1-4"X6" WOOD POST.  
CC. PEPCO TO INSTALL LEASED LIGHT ON EXISTING UTILITY POLE.  
DD. INSTALL 12 INCH WHITE WATERBORNE PAINT.

## NEMA PHASING



NOTE:  
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.  
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

GENERAL NOTES:

1. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
3. FOR TEMPORARY PAVEMENT MARKINGS REFER TO THE MAINTENANCE OF TRAFFIC PLANS, OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
4. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
5. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCCELL.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABEL.
7. THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
8. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
9. CONTRACTOR SHALL BAG ALL SIGNAL HEADS NOT ACTIVELY IN USE DURING CONSTRUCTION.
10. CONTRACTOR SHALL MAINTAIN SAFE PEDESTRIAN CROSSING PATHS IN ACCORDANCE WITH MUTCD DURING ALL PHASES OF CONSTRUCTION.
11. APS PUSH BUTTONS MAY BE USED AS A STANDARD PUSH BUTTON DURING TEMPORARY PHASING UNTIL ALL NEW PUSH BUTTONS AND RAMPS FOR EACH CROSSING ARE INSTALLED.

APS PUSHBUTTON NOTES:

1. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60"x60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
2. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
3. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
4. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG 4E.2 AND NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE". IF NOT-MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

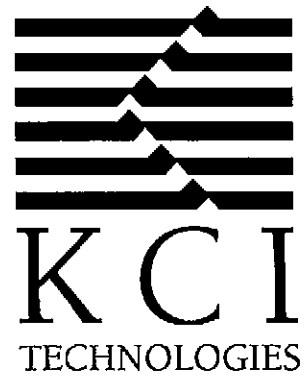


STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 355 AT HUBBARD DRIVE  
PHASE 2, STAGES 4 & 5

## TEMPORARY TRAFFIC SIGNAL PLAN

SCALE 1" = 20'		DATE 01/20/09		CONTRACT NO.	
DESIGNED BY W.W.C.		COUNTY MONTGOMERY			
DRAWN BY T.E.L.		LOGSHEET 15035566.86			
CHECKED BY JOHN C. RICE		DATE 01/20/09		G248	
FAP NO. N/A		TOD NO.			
TS NO. 2690B		DRAWING SP-1 OF 41		SHEET NO. 5 OF 84	

PLOTTED: \*03:43 PM on Friday, February 20, 2009\*  
FILE: M:\2007\1070770.db\drawings\pSG-P210\_MD355.dgn



*ENGINEERS*  
*PLANNERS*  
*SCIENTISTS*  
*CONSTRUCTION MANAGERS*

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